

**WHAT IS CLAIMED IS:**

1. An isolated IL-16 antagonist peptide consisting of CLLS.
- 5 2. An isolated IL-16 antagonist peptide of any one of WQCLLS, WQALLS, VVQVVA or VKQVVA.
3. An isolated IL-16 antagonist peptide consisting of GMWQCLLS (SEQ ID NO:13).
- 10 4. An isolated peptide consisting of GMWQCLLSDSGQVLLE (SEQ ID NO:12)
5. An isolated peptide consisting of any one of TGLWQCLLSEGD (SEQ ID NO:14) or VSEEQKVVQVVA (SEQ ID NO:15).
- 15 6. An IL-16 antagonist peptide comprising Xaa<sub>1</sub>-LL-Xaa<sub>2</sub> wherein Xaa<sub>1</sub> and Xaa<sub>2</sub> is any amino acid (SEQ ID NO:1).
7. The IL-16 antagonist peptide of Claim 6 wherein Xaa<sub>1</sub>-LL-Xaa<sub>2</sub> is identical to the corresponding native sequence of a mammalian IL-16.
- 20 8. An IL-16 antagonist peptide comprising CLLS (SEQ ID NO:2).
9. An IL-16 antagonist peptide comprising Xaa<sub>1</sub>-Xaa<sub>2</sub>-Xaa<sub>3</sub>-L-L-Xaa<sub>4</sub> wherein Xaa<sub>1</sub>-Xaa<sub>4</sub> is any amino acid (SEQ ID NO:3).
- 25 10. The IL-16 antagonist peptide of Claim 9, wherein Xaa<sub>1</sub> is Trp; Xaa<sub>2</sub> is selected from Gln or Ala, Xaa<sub>3</sub> is selected from Cys or Ala and Xaa<sub>4</sub> is Ser.
11. The IL-16 antagonist peptide of Claim 9, wherein Xaa<sub>1</sub>-Xaa<sub>2</sub>-Xaa<sub>3</sub>-L-L-Xaa<sub>4</sub> identical to the corresponding native sequence of a mammalian IL-16.
- 30 12. An IL-16 antagonist peptide comprising WQCLLS (SEQ ID NO:4) or WQALLS (SEQ ID NO:5).

13. An IL-16 antagonist peptide comprising Xaa<sub>1</sub>-Val-Xaa<sub>2</sub>-Val-Xaa<sub>3</sub>-Xaa<sub>4</sub> wherein Xaa<sub>1</sub>-Xaa<sub>4</sub> is an amino acid (SEQ ID NO:8).

5 14. The IL-16 antagonist peptide of Claim 13, wherein Xaa<sub>1</sub>-Val-Xaa<sub>2</sub>-Val-Xaa<sub>3</sub>-Xaa<sub>4</sub> is identical to the corresponding native sequence of a mammalian IL-16.

15 15. An IL-16 antagonist peptide comprising VVQVVA (SEQ ID NO:9) or VVQKVA (SEQ ID NO:11).

10 16. An IL-16 antagonist peptide comprising GMWQCLLS (SEQ ID NO:13).

17. An IL-16 antagonist peptide comprising GMWQCLLSDSGQVLLE (SEQ ID NO:12).

18. An isolated nucleic acid molecule coding for any one of the peptide of Claims 1-6, 8 or 12.

15 19. An antibody directed against the peptide of any one of Claims 1-6, 8 or 12.

20 20. A pharmaceutical composition comprising the peptide of any of Claims 1-6, 8 or 12, and a pharmaceutically acceptable carrier.

21. A pharmaceutical composition comprising the antibody of Claim 19.

22. A method of treating an IL-16 mediated disorder in a subject, comprising administering to the subject a therapeutically effective amount of the peptide of any of Claims 1-6, 8 or 12 and a pharmaceutically acceptable carrier.

25 23. The method of Claim 22, wherein said IL-16 mediated disorder is an inflammatory disease selected from asthma, arthritis, inflammatory bowel disease (IBD), Systemic Lupus (SLE), multiple sclerosis (MS), Graves ophthalmopathy, atopic rhinitis, atopic dermatitis and bullous pemphigoid.

24. The method of Claim 23, further comprising simultaneously administering an anti-inflammatory agent selected from NSAIDS, steroids, anti-TNF $\alpha$  antibody, anti-CD4 antibodies, cyclosporin-A.

5 25. A method of inhibiting the binding of IL-16 to a CD4 receptor comprising the administration of at least one peptide of any one of Claims 1-6, 8 or 12.

26. An IL-16 antagonist.

10 27. A pharmaceutical composition comprising an IL-16 antagonist and a pharmaceutically acceptable carrier.

15 28. A method of treating an IL-16 mediated disorder comprising blocking the interaction of IL-16 with an IL-16 receptor by the administration of an IL-16 antagonist.